



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D4956-35**  
**Job Sheet 203177**



Part No: D4956-35

Job Qty: 1 pc

Part Name: Wearplate Aft



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/11/19

Job Tracking No:

Due Date: 11/29/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV A SHEETS 6,8 IPP REV:A 14.04.22 NEW ISSUE DD VERF:JLM

Ship Via:

## Bill of Materials

## Job Routing

| Op No | Operation                  | Qty | Start Date | Due Date | Standard  |         | Workcenter/Supplier         |           | Sign-off                |
|-------|----------------------------|-----|------------|----------|-----------|---------|-----------------------------|-----------|-------------------------|
|       |                            |     |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier       | Lead Time |                         |
| 100   | Waterjet - Flow - 1        | 4   |            | 11/29/19 | 0.17      | 0.53    | Waterjet - Flow             |           | JRB 11/29/19            |
|       |                            | 4   |            | 11/29/19 | 0.00      | 0.00    | QC 8 - 12                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 14                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 17                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 20                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 25                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 3                    |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 32                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 33                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 35                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 39                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 4                    |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 44                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 45                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 49                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 58                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 8                    |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 9                    |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 68                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 67                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 1 (A)                |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 47                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 40                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 52                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 23                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 57                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 76                   |           |                         |
|       |                            |     |            |          |           |         | QC 8 - 61                   |           |                         |
| 130   | Small Fab - Brake NC - B4B | 4   |            | 11/29/19 | 0.25      | 0.08    | Small Fab - Brake - 1 - B4B |           | DAS 30 9-89 DEC 04 2019 |
|       |                            |     |            |          |           |         | Small Fab - Brake - 2 -     |           |                         |

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Email: sales@dartaero.com  
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Container No: S236306

Part: D4956-35

Job No: 203177

Serial No/Batch: S236306

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 11/29/19

**PRIORITY**

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|                                   |       |          |           | B4B                         |            |
|-----------------------------------|-------|----------|-----------|-----------------------------|------------|
|                                   |       |          |           | Small Fab - Brake - 3 - B4B |            |
| 140 QC 5                          | 4 pcs | 11/29/19 | 0.00 0.00 | QC 5 - 10                   |            |
|                                   |       |          |           | QC 5 - 12                   |            |
|                                   |       |          |           | QC 5 - 17                   |            |
|                                   |       |          |           | QC 5 - 18                   |            |
|                                   |       |          |           | QC 5 - 19                   |            |
|                                   |       |          |           | QC 5 - 22                   |            |
|                                   |       |          |           | QC 5 - 24                   |            |
|                                   |       |          |           | QC 5 - 3                    |            |
|                                   |       |          |           | QC 5 - 43                   |            |
|                                   |       |          |           | QC 5 - 49                   |            |
|                                   |       |          |           | QC 5 - 51                   |            |
|                                   |       |          |           | QC 5 - 58                   |            |
|                                   |       |          |           | QC 5 - 68                   |            |
|                                   |       |          |           | QC 5 - 9                    |            |
|                                   |       |          |           | QC 5 - 50                   |            |
|                                   |       |          |           | QC 5 - 30                   |            |
|                                   |       |          |           | QC 5 - 40                   |            |
|                                   |       |          |           | QC 5 - 61                   |            |
|                                   |       |          |           | QC 5 - 81                   |            |
| 150 Handfinish - 4-1-Assembly-B4B | 4 pcs | 11/29/19 | 0.00 0.20 | Handfinish - 4 - 1 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 10 - B4B   |            |
|                                   |       |          |           | Handfinish - 4 - 11 - B4B   | RD 17-12-4 |
|                                   |       |          |           | Handfinish - 4 - 12 - B4B   |            |
|                                   |       |          |           | Handfinish - 4 - 13 - B4B   |            |
|                                   |       |          |           | Handfinish - 4 - 14 - B4B   |            |
|                                   |       |          |           | Handfinish - 4 - 15 - B4B   |            |
|                                   |       |          |           | Handfinish - 4 - 2 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 3 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 4 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 5 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 6 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 7 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 8 - B4B    |            |
|                                   |       |          |           | Handfinish - 4 - 9 - B4B    |            |
| 160 QC 3                          | 4 pcs | 11/29/19 | 0.00 0.00 | QC 3 - 10                   |            |
|                                   |       |          |           | QC 3 - 13                   |            |
|                                   |       |          |           | QC 3 - 15                   |            |
|                                   |       |          |           | QC 3 - 17                   |            |
|                                   |       |          |           | QC 3 - 18                   |            |
|                                   |       |          |           | QC 3 - 2                    |            |
|                                   |       |          |           | QC 3 - 28                   |            |
|                                   |       |          |           | QC 3 - 3                    |            |
|                                   |       |          |           | QC 3 - 30                   |            |
|                                   |       |          |           | QC 3 - 34                   |            |
|                                   |       |          |           | QC 3 - 36                   |            |
|                                   |       |          |           | QC 3 - 41                   |            |
|                                   |       |          |           | QC 3 - 51                   |            |
|                                   |       |          |           | QC 3 - 58                   |            |
|                                   |       |          |           | QC 3 - 59                   |            |
|                                   |       |          |           | QC 3 - 68                   |            |
|                                   |       |          |           | QC 3 - 9                    |            |
|                                   |       |          |           | QC 3 - 40                   |            |
|                                   |       |          |           | QC 3 - 19                   |            |
|                                   |       |          |           | QC 3 - 43                   |            |
|                                   |       |          |           | QC 3 - 24                   |            |
|                                   |       |          |           | QC 3 - 61                   |            |

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DEC 05 2019



|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         | QC 3 - 81 |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------|-------------------------|-----------|-------------------------|
| 170                                                                                                                                                                                                                                                                                                                                  | Packaging 3-1 - Stock - B4B | 4                 | 11/29/19                | 0.00 0.00 | Packaging 3 - 1 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      | pcs                         |                   |                         |           | Packaging 3 - 2 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      | 8 Pcs                       |                   |                         |           | Packaging 3 - 3 - B4B ✓ |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 4 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 5 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 6 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 7 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 8 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 9 - B4B   |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 10 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 11 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 12 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 13 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 14 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 15 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 16 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 17 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 18 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 19 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 20 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 21 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 22 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 23 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 24 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 25 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 26 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 27 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 28 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 29 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 30 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 31 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 32 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 33 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 34 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 35 - B4B  |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | Packaging 3 - 36 - B4B  |
| 180                                                                                                                                                                                                                                                                                                                                  | QC 21 - SA                  | 4                 | 11/29/19                | 0.00 0.00 | QC 21 - SA - 21 ✓       |
|                                                                                                                                                                                                                                                                                                                                      | pcs                         |                   |                         |           | QC 21 - SA - 70         |
|                                                                                                                                                                                                                                                                                                                                      | 8                           |                   |                         |           | QC 21 - SA - 53         |
|                                                                                                                                                                                                                                                                                                                                      |                             |                   |                         |           | DEC 06 2019             |
| Part Op 120 - (QC8- Inspect parts - second check)<br>Descriptions: 130 - (Form as per dwg)<br>140 - (QC5- Inspect part completeness to step on W/O)<br>150 - (Assemble as per dwg)<br>160 - (QC3- Inspect Part Finish)<br>170 - (Identify as per dwg & Stock Location: _____)<br>180 - (QC21- Final Inspection - Work Order Release) |                             |                   |                         |           |                         |
| <b>Job BOM</b>                                                                                                                                                                                                                                                                                                                       |                             |                   |                         |           |                         |
| Part / Item                                                                                                                                                                                                                                                                                                                          | Component Name              | Quantity          | Operation               | Container |                         |
| M304S20GA                                                                                                                                                                                                                                                                                                                            | 304/316 .040 Sheet          | 2.8000 sf (.7 ea) | 100-Waterjet - Flow - 1 | 5232152   |                         |
| <b>Job Allocations</b>                                                                                                                                                                                                                                                                                                               |                             |                   |                         |           |                         |
| Operation                                                                                                                                                                                                                                                                                                                            | Component Part              | Required          | Inventory               | Allocated |                         |
| 100-Waterjet - Flow - 1                                                                                                                                                                                                                                                                                                              | M304S20GA                   | 3                 | 29                      | 0         |                         |

| Part Specifications |             |                                |                  |          |                  |
|---------------------|-------------|--------------------------------|------------------|----------|------------------|
| Spec No             | Description | Target/Tolerance               | Limits           | Type     | Special Comments |
| 1                   | Wearshoe    | 0.188Inches + 0.005<br>- 0.001 | 0.193<br>0.187   | Diameter |                  |
| 2                   | Wearshoe    | 0.300Inches ± 0.010            | 0.310<br>0.290   |          |                  |
| 3                   | Wearshoe    | 0.300Inches ± 0.010            | 0.310<br>0.290   |          |                  |
| 4                   | Wearshoe    | 1.885Inches ± 0.010            | 1.895<br>1.875   |          |                  |
| 5                   | Wearshoe    | 2.000Inches ± 0.010            | 2.010<br>1.990   |          |                  |
| 6                   | Wearshoe    | 6.750Inches ± 0.010            | 6.760<br>6.740   |          |                  |
| 7                   | Wearshoe    | 11.500Inches ± 0.010           | 11.510<br>11.490 |          |                  |
| 8                   | Wearshoe    | 16.250Inches ± 0.010           | 16.260<br>16.240 |          |                  |
| 9                   | Wearshoe    | 19.750Inches ± 0.010           | 19.760<br>19.740 |          |                  |
| 10                  | Wearshoe    | 21.750Inches ± 0.010           | 21.760<br>21.740 |          |                  |
| 11                  | Wearshoe    | 25.250Inches ± 0.030           | 25.280<br>25.220 |          |                  |
| 12                  | Wearshoe    | 25.630Inches ± 0.030           | 25.660<br>25.600 |          |                  |
| 13                  | Wearshoe    | 6.000Inches ± 0.030            | 6.030<br>5.970   |          |                  |
| 14                  | Wearshoe    | 12.750Inches ± 0.030           | 12.780<br>12.720 |          |                  |
| 15                  | Wearshoe    | 0.040Inches ± 0.010            | 0.050<br>0.030   |          |                  |

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Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |                               |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |              |                               |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MRB (QSI042) |                               |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              | <b>Completed By</b>           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              | <b>Lead hand / Supervisor</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              | <b>QC / QA Coordinator</b>    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Preservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |              |                               |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |                               |  |